## AFFIDAVIT OF THOMAS WILLIAM YOUNG, M.D.

Being of lawful age and first duly sworn on oath, I state the following:

My name is Thomas William Young. M.D. Attached to this affidavit as Exhibit One is a copy of my report dated August 25, 2016 concerning the *State of Oklahoma v. Zachary Cobb*, CF-2012-0244. The contents of this report are true and correct and contain my opinions made to a reasonable degree of medical certainty. Attached to this Affidavit as Exhibit two is my current Curriculum Vitae.

I was contacted by Attorney Jack Fisher in August of 2016. This was my first involvement in this case and I have had no previous contact by any lawyer representing Mr. Zachary Cobb.

FURTHER THE AFFIANT SAYS NOT.

THOMAS W. YOUNG, M.D.

Sworn to before me this  $\frac{12^{+4}}{}$  day of January, 2017.

TYLER GRAY

Notary Public - Notary Seal

STATE OF MISSOURI

Jackson County

My Commission Expires Oct. 17, 2020

Commission # 16521026

NOTARY PUBLIC

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August 25, 2016

Jack Fisher, Esq. Hightower Building, Oklahoma City, Oklahoma PO Box 1976 Edmond, OK 73083-1976

Re: OK v. Zachary Cobb

Dear Mr. Fisher:

In accordance with your request I read the Charging Document for this case, records from the Air Evac Lifeteam, birth records from SouthCrest Hospital, medical records from St. Francis Hospital including the report of Nichole G. Wallace MD, records from the Children's Center, and transcripts of the court testimonies of neurosurgeon Dan Boedecker and child abuse pediatrician Nichole Wallace.

The following are my opinions made to a reasonable degree of medical certainty.

Any scientist or physician offering testimony in a courtroom can validly say with reasonable certainty what *can happen* in general according to observation-based science or what *could have happened* in a particular case, but medical and scientific experts like myself cannot validly claim to be reasonably certain of what *did happen* in a particular case. Persons who directly witnessed what happened or persons who watched a recording of those events are the only ones who can know for certain what happened.

The defendant, Zachary Cobb, directly witnessed the events that took place with fivemonth-old Loki Cobb. According to the report written by Major Gary Handley in the Charging Document:

I began by interviewing Zachary Cobb in my patrol vehicle. Zachary stated that when he had been feeding the infant formula and the child began to choke. He stated he then repositioned the child and resumed the feeding, but the child began to choke again. Zachary suspected the formula was too thin. Zachary then noticed the infant, was not breathing. He stated that he was certified in infant CPR and that he rushed the child to the sink and ran water over the child, then placed ice in on the child in hopes of getting him breathing. As these efforts failed, Zachary then attempted CPR on the child on the counter, on the floor, and outside on the driveway until EMS arrived.

Later in the hospital, health care providers discovered in the child acute and chronic bilateral subdural hematomas, bilateral retinal hemorrhages, and progressively worsening cerebral edema (brain swelling). Loki required two surgical interventions to treat the subdural hematomas; unfortunately, he developed global brain damage for which he now

undergoes rehabilitative therapy.

It is my opinion, made to a reasonable degree of medical certainty, that the witness account of Zachary Cobb as recorded by Major Gary Handley *could have happened* in the fashion described. There is nothing in that account that is inconsistent with the medical outcome.

Since the turn of the millennium, physicians and pathologists in the United Kingdom have had the opportunity to observe infants in the hospital setting develop subdural hemorrhages outside the setting of trauma. Stillborn fetuses they examined also had similar subdural hemorrhages present without a history of trauma. Many of the living infants and even small children up to three years of age required respirators to breathe. Many of them during their hospital course developed issues with hypoxia — a medical term meaning "lack of oxygen" — while under treatment for natural disease.

Academic neuropathologists in the United Kingdom not only autopsy children in the medical care setting but they also perform autopsies for the coroner, including autopsies of children with alleged shaken baby syndrome. This is a setting and opportunity unlike most places in the United States. These doctors found that the subdural hemorrhages in the hospitalized infants and small children not associated with trauma were identical in appearance to the subdural hemorrhages in alleged shaken baby cases.

Physicians and other scientists have observed and documented the consequences of brain damage and cerebral edema from a lack of oxygen (hypoxia) and a lack of blood flow (ischemia) for many years, and documented cases of infantile subdural hemorrhage associated with a lack of oxygen without trauma continue to grow. In a review article on this topic in 2009, the authors state, "SDH is seen in hypoxic infants in daily pathological practice..."<sup>1</sup>. SDH is an abbreviation for "subdural hemorrhage." Doctors have documented this association even more extensively in recent years<sup>23</sup>. The evidence scientifically is clear: subdural hemorrhages *can happen* in the setting of hypoxia and ischemia without trauma.

Retinal hemorrhages can also occur in an infant without trauma. An observational autopsy study of 123 cases performed in Dallas County, TX, amply demonstrated that<sup>4</sup>. Cerebral edema and complications following advanced cardiac life support were the common factors in these cases. Both sets of complications were factors with Loki Cobb.

<sup>&</sup>lt;sup>1</sup> Squier W, Mack J. The neuropathology of infant subdural haemorrhage. Forensic Science International 2009 May 30;187(1-3):6-13.

<sup>&</sup>lt;sup>2</sup> Cohen MC, Sprigg A, Whitby EH. Subdural hemorrhage, intradural hemorrhage and hypoxia in the pediatric and perinatal post mortem: Are they related? An observational study combining the use of post mortem pathology and magnetic resonance imaging. Forensic Science International 2010 Jul 15;200(1-3):100-7.

<sup>&</sup>lt;sup>3</sup> Scheimberg I, Cohen MC, Zapata Vasquez RE, Dilly S, Adnani MA, Turner K, Sethuraman C. Nontraumatic intradural and subdural hemorrhage and hypoxic ischemic encephalopathy in fetuses, infants, and children up to three years of age: analysis of two audits of 636 cases from two referral centers in the United Kingdom. Pediatric and Developmental Pathology 2013 May-Jun;16(3):149-59.

<sup>&</sup>lt;sup>4</sup>Matshes E. Retinal and Optic Nerve Sheath Hemorrhages Are Not Pathognomonic of Abusive Head Injury. Proceedings of the American Academy of Forensic Sciences, 2010.

Defendant Zachary Cobb described Loki Cobb as an infant who developed spells of choking and non-breathing. Such spells are called Apparent Life-threatening Events (ALTE) — spells that can occur in infants, often for unexplained reasons<sup>5</sup>. Episodes of non-breathing can lead to hypoxia and even to subdural hemorrhages outside the setting of trauma. There is even a report of a child with an Apparent Life-threatening Event developing subdural and retinal hemorrhages without an account or evidence of trauma<sup>6</sup>. Observational medical literature supports that choking episodes and hypoxia associated with cerebral edema, subdural hemorrhages and retinal hemorrhages can happen and what happened to Loki Cobb as described by the defendant could have happened.

We can explain mechanism for retinal hemorrhages and subdural hemorrhages in this case and other cases like it by what we know can happen physiologically in an infant. The infant dura is rich in venous blood channels, unlike the dura of an older person. These venous channels are abundant in the developing fetus and infant but they later disappear as the child gets older and becomes an adult. If a child is deprived of oxygen for a period of time, the heart beat slows down and there is less blood flow to these venous channels. Once oxygen is restored, the channels that were deprived of the oxygen needed to maintain their integrity will leak once blood flow to these channels is restored. Bleeding that starts in the dural membrane eventually oozes to the subdural compartment below the membrane. If there is more than one hypoxic episode as there often is in infants with ALTE, the bleeding and oozing can age and look chronic as well as acute, as in Loki Cobb's case. The same can be said of hypoxic retinal blood vessels. Brain swelling further causes further stagnation and hypoxia in these vessels because the arteries and veins that supply blood to and drain from the retinas pass through the same space in the head occupied by the swelling brain, The increasing pressure from the swelling brain further impairs and stagnates blood flow.

Also, a lack of oxygen for a period of time can lead to temporary derangements in the body's ability to clot blood; consequently, aggressive handling of the child during a resuscitation can lead to diffuse bruises in his body.

Child abuse pediatricians like Dr. Nichole Wallace and many others who are trained like her refuse to accept that hypoxia can lead to subdural hemorrhages, retinal hemorrhages, and brain damage outside of the setting of trauma. They choose to *presume negatively*. They presume that eyewitnesses are not truthful and observational science performed over many years is not truthful. Presuming negatively does not lead to any useful conclusion, and this is easily demonstrated: We may accept that 1 + 1 = 2, but if we presume that one is *not* added to one, we will never learn the sum. This is because one not being added to one can lead to a sum of two or a sum that is not two — in other words, a sum that could be anything. In the same way, when Dr. Wallace presumes that Zachary Cobb is *not* being truthful or that scientific observations of hypoxic complications that look like the shaken baby syndrome are *not* truthful, she makes herself unable to learn anything.

<sup>&</sup>lt;sup>5</sup> Hall KL, Zalman B. Evaluation and Management of Apparent Life-Threatening Events in Children. American Family Physician 2005;71:2301-2308.

<sup>&</sup>lt;sup>6</sup> Barnes PD, Galaznik J, Gardner H, Shuman M. Infant acute life-threatening event—dysphagic choking versus nonaccidental injury. Seminars in Pediatric Neurology 2010 Mar;17(1):7-11.

Dr. Wallace insisted in her report and in her court testimony that trauma is the only cause of the complications noted in Loki Cobb. This is apparent in the Impression section of her report:

IMPRESSION: Loki is a 5-month-old child who has bilateral subdural hematomas that are both acute and chronic. He also has bilateral multilayered retinal hemorrhages and (upon admission) diffuse bruises on his body. No appropriate trauma history has been provided to explain either his subdural hemorrhages or his bruises. The constellation of clinical findings in this case are diagnostic of abusive head trauma. This child appears to have sustained at least 2 episodes of head trauma that account for the differential timing of his subdural hemorrhages.

Since there was no account of trauma sufficient to cause global brain damage and numerous hemorrhages, than abusive head trauma had to have happened according to Dr. Wallace. This is a confused conclusion — one where she claims to know what *did happen* in the case of Loki Cobb because nothing else but trauma, according to her, could cause the changes seen in Loki Cobb.

Dr. Wallace is not the only physician to presume negatively like this; many of our physician colleagues do the same thing — particularly when it comes to the hypoxia issue. An illustration of this is a paper published in 2007 that claimed that there was a "lack of evidence" for a causal relationship between hypoxia/ischemia and subdural hemorrhage in fetuses, infants and small children. This study reviewed cases from pathologists all over the world and saw *no* case where hypoxia caused subdural hemorrhages. An examination of the Materials and Methods section of the report disclosed that the authors removed all cases of cranial trauma. Since trauma is presumed by these pathologists to be the cause of subdural hemorrhages, hypoxia cases associated with subdural hemorrhage would have been removed from consideration, leaving only cases where hypoxic-ischemic changes in the brain were not accompanied by subdural hemorrhage. This circular argument problem — a problem where one accepts as a premise the very item that is concluded — would explain why they found *no* case where hypoxia was associated with subdural hemorrhage in spite of the observations of many others that "SDH is seen in hypoxic infants in daily pathological practice."

The flawed 2007 study is one example of many studies in the child abuse literature with circular argument problems — where what is already believed is concluded. Dr. Wallace and many others like her ascribe to the idea that a doctor can look at a child and "diagnose" child abuse or abusive head trauma — essentially determine what *did happen* even though what is asserted to have happened was never seen by anyone, including the doctor. These assertions are beliefs without an observational basis. Such beliefs are supported in a

<sup>&</sup>lt;sup>7</sup> Byard RW, Blumbergs P, Rutty G, Sperhake J, Banner J, Krous HF. Lack of Evidence for a Causal Relationship Between Hypoxic-Ischemic Encephalopathy and Subdural Hemorrhage in Fetal Life, Infancy, and Early Childhood. Pediatric and Developmental Pathology 2007;10:348-350.

circular fashion and reinforced by literature article after literature article.

Dr. Wallace asserted such beliefs in her testimony on pages 444 and 445:

Shaken baby syndrome essentially is a constellation or a group of injuries that kids often present with after they have had an abusive head trauma event. And typically that involves a type of shaking mechanism so often these kids have been shaken. Sometimes there has been an impact. An impact can be a soft surface or a hard surface. So a kid might get shaken and then thrown onto their crib mattress, or shaken and their head slammed on the crib frame. So we know that typically there is a shaking mechanism involved and then there may or may not be an impact component to that.

Unlike the hypoxia association described earlier in this report which has been observed by scientists on multiple occasions over multiple years, none of what she said in the paragraph above has ever been observed by any scientist or physician. Scientists do not abuse babies to test and observe what will happen, nor are they ever present when babies are being traumatized and abused. The beliefs above and other beliefs offered in her testimony are essentially beliefs in the unseen — beliefs that are more like religious faith rather than observational or evidence-based science, beliefs to which she strenuously adheres. According to page 503 of the court transcript, while she was under cross-examination, Dr. Wallace once again asserted what she believed *did happen*:

- Q. And that's because that is your opinion that this had to be I mean, you've
  made your mind up and you are not open to anything else. This had to have been
  shaken. That is what you think, isn't it, that the child was shaken?
- · A. Ultimately, yes. That is my opinion.

Such beliefs can also be misleading when applied to the Loki Cobb case. One belief is that shaking a baby tears bridging veins (page 449 of the transcript) — relatively large veins that bridge between veins on the surface of the brain and the dural sinus that collects venous blood. A torn bridging vein can lead to rapid bleeding, and such bleeding was noted during a second neurosurgical procedure after a first neurosurgical procedure had been performed. In his testimony, Dr. Boedecker chose to blame abusive head trauma rather than admit that the first neurosurgical procedure could have torn the bridging vein (pages 548 and 551 of the transcript).

As strange as it may seem for a scientist to insist on her beliefs in spite of evidence to the contrary, I understand why she needs to do this. My own experience as a medical examiner informs my understanding: No doctor maintains a good reputation or even keeps his or her job for long by being wrong on critically important issues that can damage someone's life and reputation. Defending her position in spite of evidence to the contrary is something she has to do, particularly if she has offered similar testimony many times in the past. Furthermore, we admire our teachers and colleagues, and it often takes extraordinary measures for the majority of us to go contrary to what our teachers and colleagues believe.

Not only do issues like diagnosing abusive head trauma and shaken baby syndrome affect individual medical experts testifying in court but they also affect medical organizations like the American Academy of Pediatrics who offer position papers supporting tenets of abusive head trauma and shaken baby syndrome<sup>8</sup>. This organization and others like it need to protect the good standing of their members. Political issues unfortunately often trump scientific ones. Consequently, there is a resistance to change and to re-evaluating previous policy.

Unfortunately, this does not help matters in the courtroom where judges, attorneys and juries depend on medical and scientific experts to be fair and open-minded. Too often, judges, attorneys and juries fail to discern how the limitations of valid science have been exceeded by negative, close-minded doctors.

Respectfully submitted,

Thomas W. Young, MD

<sup>&</sup>lt;sup>8</sup> Christian CW, Block R, Committee on Child Abuse and Neglect. Abusive Head Trauma in Infants and Children. Pediatrics 2009 May;123(5):1409-1411.

#### **CURRICULUM VITAE**

## THOMAS WILLIAM YOUNG, M.D.

#### PERSONAL DATA:

Birthdate: June 12, 1956

Birthplace: La Mesa, California

#### PROFESSIONAL POSITION:

Heartland Forensic Pathology, LLC (private practice)

12717 Oakmont Drive

Kansas City, Missouri 64145

#### **ACADEMIC RECORD:**

College: Loma Linda University

College of Arts and Sciences

Riverside, California October 1974 - June 1977

Medical School: Loma Linda University

School of Medicine Loma Linda, California

September 1977 - November 1980

Bachelor of Science (Human Biology) and

Medical degrees awarded on November 30, 1980

Internship and Residency: Anatomic and Clinical Pathology

Loma Linda University Medical Center and Jerry L. Pettis

Memorial Veterans Administration Hospital

Loma Linda, California

January 1981 - December 1984

Fellowship: Forensic Pathology

Office of the Medical Examiner, Fulton County (Program affiliated with Emory University, School of Medicine)

Atlanta, Georgia July 1988 - June 1989

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## **BOARD CERTIFICATION:**

Diplomate-National Board of Medical Examiners January 2, 1982

Diplomate-American Board of Pathology Anatomic and Clinical Pathology - May 31, 1985 Forensic Pathology - September 25, 1989

#### **MEDICAL LICENSURE:**

Missouri—MD108989 Kansas—04-32417 Georgia—030931 (inactive)

#### **PROFESSIONAL ACTIVITIES:**

Heartland Forensic Pathology, LLC (private practice) Kansas City, Missouri January 2007 – Present

Review Board, The American Investigative Society of Cold Cases (AISOCC)
June 2013 – Present

Jackson County Medical Examiner Kansas City, Missouri July 1995 – December 2006

Medical Examiner, Platte County Missouri July 1995 – December 2006

Medical Examiner, Clay County Missouri April 1996 – December 2006

Medical Examiner, Cass County Missouri January 2004 – December 2006

Director, Office of the Jackson County Medical Examiner Forensic Pathology Training Program July 2002 – December 2006

PAGE 3

Clinical Associate Professor University of Missouri-Kansas City School of Medicine September 1997 – December 2006

Forensic Pathologist, National Disaster Medical System (DMORT - 7)
United States Department of Homeland Security
October 1996 – March 2006

Participated in Federal Disaster Response involving Korean Airlines Flight 801, Guam August 1997

Associate Medical Examiner, Fulton County Atlanta, Georgia July 1989 - June 1995

Assistant Professor of Pathology, Emory University School of Medicine August 1994 - June 1995

Clinical Assistant Professor of Pathology, Emory University School of Medicine July 1991 - August 1994

Medical Examiner for Division of Forensic Sciences, Georgia Bureau of Investigation Decatur, Georgia July 1989 - June 1995

Chief, Anatomic Pathology Ehrling Bergquist Strategic Hospital Offutt Air Force Base, Nebraska January 1985 - May 1988

Medical Director, Phase II Laboratory Technician Training Program Ehrling Bergquist Strategic Hospital Offutt Air Force Base, Nebraska January 1985 - May 1988

PAGE 4

Major, Active Duty United States Air Force Medical Corps January 1985 - May 1988

#### PROFESSIONAL MEDICAL SOCIETIES:

Alpha Omega Alpha Honor Medical Society (1980) American Society of Clinical Pathologists (1983; Fellow 1985) College of American Pathologists (Fellow 1985) American Academy of Forensic Sciences (1989; Fellow 2003) National Association of Medical Examiners (1989; Fellow)

#### **PUBLICATIONS**:

- 1. Young TW, Thrasher TV. Non-chromaffin Paraganglioma of the Uterus A Case Report. Arch Pathol Lab Med 106:608-609, 1982.
- 2. Young TW, Keeney GL, Bull BS. Red Cell Fragmentation in Human Disease (A Light and Scanning Electron Microscope Study). Blood Cells 10:493-501, 1984.
- 3. Young TW. Reye's syndrome. A Diagnosis Occasionally First Made at Medicolegal Autopsy. Am J Forensic Med Pathol 13:21-27, 1992.
- 4. Mandsager NT, Young TW. Pain During Sexual Response Due to Bilateral Bartholin Gland Adenomas. A Case Report. J Reprod Med 37:983-985, 1992.
- 5. Young TW, Pollock DA. Misclassification of Deaths Caused by Cocaine. An Assessment by Survey. Am J Forensic Med Pathol 14:43-47, 1993.
- 6. Gulino SP, Young TW. Restraint asphyxia [letter]. Am J Forensic Med Pathol 21(4):420, 2000.
- 7. Garg U, Althahabi R, Amirahmudi V, Brod M, Blanchard C, Young T. Hyaluronidase as a Liquefying Agent for Chemical Analysis of Vitreous Fluid. J Forensic Sci 49 (2):388-391, 2004.
- 8. Young TW, Wooden SE, Dew PC, Hoff GL, Cai J. The Richard Cory Phenomenon: Suicide and Wealth in Kansas City, Missouri. J Forensic Sci 50(2):443-447, 2005.

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- 9. Rosales CM, Laboy MA, Young T, Garg U. Death of an Infant Involving Guaifenesin. Tox Talk 30(3):9, 2006.
- 10. Young TW. Examination of Female Pelvic Organs by *en bloc* Resection. In: Spitz WU, editor. Spitz and Fisher's Medicolegal Investigation of Death: Guidelines for the Application of Pathology to Crime Investigation. Springfield, IL: Charles C. Thomas, 2006.
- 11. Young TW. Catch-22 No More! Twenty-two Lessons Learned as a Chief Medical Examiner. <a href="http://www.heartlandforensic.com/writing/catch-22">http://www.heartlandforensic.com/writing/catch-22</a>. August 12, 2007.
- 12. Young TW, Okoye MI. The Role of the Forensic Pathologist in a Mass Disaster. In: Okoye MI, Wecht CH, editors. Forensic Investigation and Management of Mass Disasters. Tucson, AZ: Lawyers & Judges Publishing Company, Inc, 2007.
- 13. Rosales CM, Young T, Laster MJ, Eger EI, Garg U. Sevoflurane Concentrations in Blood, Brain and Lung After Sevoflurane-Induced Death. J Forensic Sci 52 (6): 1408-1410, 2007.
- 14. Young TW. Forensic Science and the Scientific Method. http://www.heartlandforensic.com/writing/forensic-science-and-the-scientific-method. February 13, 2008.
- 15. Young TW. An Inferential Test for Expert Testimony. http://www.heartlandforensic.com/writing/an-inferential-test-for-expert-testimony. April 5, 2009.
- 16. Young TW. Is Sherlock Holmes' "Reasoning Backwards" a Reliable Method for Discovering Truth? Analyses of Four Medicolegal Cases. <a href="http://www.heartlandforensic.com/writing/is-sherlock-holmes-reasoning-backwards-a-reliable-method-for-discovering-truth">http://www.heartlandforensic.com/writing/is-sherlock-holmes-reasoning-backwards-a-reliable-method-for-discovering-truth</a>. September 14, 2010.
- 17. Young TW. Attorneys and Judges, You Can Stop the Madness Now. <a href="http://www.heartlandforensic.com/writing/attorneys-and-judges-you-can-stop-the-madness-now">http://www.heartlandforensic.com/writing/attorneys-and-judges-you-can-stop-the-madness-now</a>. September 19, 2010.
- 18. Young TW. Fatal Bronchial Asthma With Bilateral Lung Collapse. Am J Forensic Med Pathol 31(4):373-375, 2010.
- 19. Young TW. Do Resuscitation-Related Injuries Kill Infants and Children? [letter] Am J Forensic Med Pathol 31(4):e6, 2010.

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- 20. Young TW. Putting It All Together: The Logic Behind the Forensic Scientific Method and the Inferential Test.

  <a href="http://www.heartlandforensic.com/writing/putting-it-all-together-the-logic-behind-the-forensic-scientific-method-and-the-inferential-test">http://www.heartlandforensic.com/writing/putting-it-all-together-the-logic-behind-the-forensic-scientific-method-and-the-inferential-test</a>.

  January 11, 2011.
- 21. Young TW. Do You Know The Difference Between Diagnostic Medicine and Forensic Medicine?

  <a href="http://www.heartlandforensic.com/writing/forensic-inference/do-you-know-the-difference-between-diagnostic-medicine-and-forensic-medicine">http://www.heartlandforensic.com/writing/forensic-inference/do-you-know-the-difference-between-diagnostic-medicine-and-forensic-medicine</a>.

  April 23, 2011.
- 22. Young TW. The Death of SIDS [letter]. Acad For Path 1(1):238, 2011.
- 23. Young TW. Shaken Infants Die of Neck Trauma, Not of Brain Trauma [letter]. Acad For Path 1(1):240-241, 2011.
- 24. Young TW. The Inferential Test is Always True. Think of it as a Law. <a href="http://www.heartlandforensic.com/writing/forensic-inference/the-inferential-test-is-always-true-think-of-it-as-a-law">http://www.heartlandforensic.com/writing/forensic-inference/the-inferential-test-is-always-true-think-of-it-as-a-law</a>. September 11, 2011.
- 25. Young TW. Dr. Young Addresses The Big Question. <a href="http://www.heartlandforensic.com/writing/chapter-0-introduction">http://www.heartlandforensic.com/writing/chapter-0-introduction</a>. November 10, 2011.
- 26. Young TW. Inference in Forensic Pathology [letter]. Acad For Path 2(1):105-106, 2012.
- 27. Young TW. Diatoms, Retinal Hemorrhages and Other Forensic Tests: A Logical Assessment Using Probability Theory.

  <a href="http://www.heartlandforensic.com/writing/diatoms-retinal-hemorrhages-and-other-forensic-tests">http://www.heartlandforensic.com/writing/diatoms-retinal-hemorrhages-and-other-forensic-tests</a>. August 29, 2012.
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#### ABSTRACTS AND FORMAL PRESENTATIONS:

1. Hanzlick RL and Young TW: Cocaine-related Death Survey. Presented at the 23rd Annual Meeting of the National Association of Medical Examiners, Sanibel Island, Florida, September 1989.

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- 2. Young TW: Reye's syndrome. A Diagnosis Occasionally First Made at Medicolegal Autopsy. Presented at the 24th Annual Meeting of the National Association of Medical Examiners, Denver, Colorado, September 1990.
- 3. Young TW and Pollock DA: Misclassification of Deaths Caused by Cocaine. An Assessment by Survey. Presented at the 43rd Annual Meeting of the American Academy of Forensic Sciences, Anaheim, California, February 1991.
- 4. Young TW: The Significance of Pigmented Pulmonary Macrophages in a Forensic Autopsy Population. Presented at the 45th Annual Meeting of the American Academy of Forensic Sciences, Boston, Massachusetts, February 1993.
- 5. Young TW: Basics of Death Investigation. Presented at the 105th Annual Meeting of the American Academy of Insurance Medicine, Kansas City, Missouri, October 1996.
- 6. Pattison CP, Marshall BJ, Young TW and Vergara GG: Is <u>Helicobacter pylori</u> the Missing Link for Sudden Infant Death Syndrome (SIDS)? Supplement to Gastroenterology 112:4, A254, 1997. Presented at the 97th Annual Meeting of the American Gastroenterological Association, May 1997.
- 7. Young TW, Blanchard CC, Brasfield R: Decapitation by Motorized Shoulder Harness, A Case Report. Presented at the 54th Annual Meeting of the American Academy of Forensic Sciences, Atlanta, Georgia, February 2002.
- 8. Garg U, Althahabi R, Brod M, Young T, Blanchard C: Hyaluronidase as a Liquefying Agent for Chemical Analysis of Vitreous Fluid. Presented at the Annual Meeting of the Society of Forensic Toxicologists, October 2002.
- 9. Gill TH, Young TW, Brasfield R: Sudden Death From Post-Traumatic Syringomyelia. Presented at the 37th Annual Meeting of the National Association of Medical Examiners, San Jose, California, September 2003.
- 10. Young TW, Gill TH, Brasfield R, Duffey J: Death by Bezoar? Presented at the 37th Annual Meeting of the National Association of Medical Examiners, San Jose, California, September 2003.

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- 12. Young TW, Wooden S, Cai J, Hoff GL, Dew PC: The Richard Cory Phenomenon, Suicide and Socioeconomic Status in Kansas City, Missouri. Presented at the 56<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences, Dallas, Texas, February 2004.
- 13. Gill TH, Young TW, Willard MJ, Garg U, and Dasuki M: Fatty Oxidation Disorders and Sudden Unexpected Death in Children. Presented at the 39<sup>th</sup> Annual Meeting of the National Association of Medical Examiners, Nashville, Tennessee, September 2004.
- 14. Gill TH and Young TW: Slavemaster.com, The Serial Murders of John E. Robinson, Sr. Presented at the 38<sup>th</sup> Annual Meeting of the National Association of Medical Examiners, Nashville, Tennessee, September 2004.
- 15. Young TW, Brasfield R, and Gill TH: Catch-22 No More! Twenty-two Lessons Learned After 10 years as a Chief Medical Examiner. Presented at the 39<sup>th</sup> Annual Meeting of the National Association of Medical Examiners, Los Angeles, California, October 2005.
- 16. Young TW: Forensic Science and the Scientific Method. Presented at the 19<sup>th</sup> Annual Alumni Reunion Meeting, Department of Pathology and Human Anatomy, Loma Linda University School of Medicine, Loma Linda, California, March 2009.
- 17. Young TW: Pseudostrangulation. Presented at the 62<sup>nd</sup> Annual Meeting of the American Academy of Forensic Sciences, Seattle, Washington, February 2010.
- 18. Young TW: Is It Really So Elementary, My Dear Watson? What Every Attorney Should Know About Flawed Forensic Science Reasoning. Presented at the North American Regional Meeting of the International Society of Family Law, Kansas City, Missouri, June 2010.
- 19. Young TW: Is It Really So Elementary, My Dear Watson? What Every Attorney Should Know About Flawed Forensic Science Reasoning. Presented at the 15<sup>th</sup> International Conference of the National Child Abuse Defense and Resource Center, Las Vegas, Nevada, August 2010.

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- 20. Young TW: What Every Pathologist Should Know About *Forensic Medicine*. Presented at the Osler Institute Pathology Board Review Course, Schaumburg, Illinois, April 2011.
- 21. Young TW: A "Show-Me" State Doctor Takes On Sherlock Holmes. Presented at the Connecticut Public Defender Spring Seminar, Hartford, Connecticut, May 2011.
- 22. Young TW: The Most Significant Fallacy of Modern Science. Presented at the Indiana Public Defender Seminar entitled, "Defending Child Abuse Allegations," Fort Wayne, Indiana, May 2012.
- 23. Young TW: A Little Lesson in Logic. Presented at the World Forensic Festival, International Academy of Forensic Sciences, Seoul, South Korea, October 16, 2014.

April 6, 2015